

WHAT IS CLAIMED IS:

1. A computer-executable method of establishing a process parameter for manufacturing a semiconductor product prior to receiving manufacturing feedback regarding the process parameter, the method comprising:

identifying a technology to which the process parameter is related;
identifying at least a first existing part manufactured using the identified technology;
retrieving information associated with the first existing part, wherein the information reflects feedback data obtained while manufacturing the first existing part;
and
calculating the process parameter based on the retrieved information.

2. The computer-executable method of claim 1 wherein calculating the process parameter includes calculating a statistical value of the retrieved information.

3. The computer-executable method of claim 2 wherein the statistical value is an average, and wherein the average is used as the process parameter.

4. The computer-executable method of claim 1 further comprising:
identifying a second existing part manufactured using the identified technology;
retrieving information associated with the second existing part, wherein the information reflects feedback data obtained while manufacturing the second existing part;
filtering out information associated with the first and second parts that fails to meet at least one predefined criterion.

5. The computer-executable method of claim 4 further comprising defining a range of acceptable information for use in filtering, wherein the predefined criterion defines a boundary of the range.

6. The computer-executable method of claim 5 wherein defining the range includes calculating a mean and a standard deviation of the information.

7. The computer-executable method of claim 6 wherein an upper boundary of the range is defined based on the mean plus the standard deviation, and wherein a lower boundary of the range is defined based on the mean minus the standard deviation.

8. The computer-executable method of claim 7 wherein the upper and lower boundaries are recalculated a predefined number of times based on information not filtered out in the preceding calculation of the range.

9. The computer-executable method of claim 1 further comprising incorporating the calculated process parameter into a manufacturing process for the semiconductor product.

10. A method for execution on a computer for determining a process parameter value to be used in manufacturing a semiconductor product prior to receiving feedback regarding the manufacturing, wherein the process parameter is associated with a specific technology, the method comprising:

selecting one or more part identifiers representing parts based on the technology;
calculating a mean of at least selected data related to each part identifier; and
using the mean as the process parameter.

11. The method of claim 10 further comprising:
calculating a range; and
recalculating the mean using only selected data related to each part identifier that is within the range.

12. The method of claim 11 wherein calculating the range includes:
calculating a standard deviation of the selected data;

calculating an upper boundary of the range as the mean plus the standard deviation; and

calculating a lower boundary of the range as the mean minus the standard deviation.

13. The method of claim 12 further comprising multiplying the standard deviation by a constant value when calculating the upper and lower boundaries.

14. The method of claim 11 further comprising defining a total number of calculations to be performed, wherein the total number identifies a number of times that the mean is to be calculated after part identifiers are filtered out using the range.

15. The method of claim 10 further comprising assigning the specific technology to the process parameter.

16. A system for determining a process parameter value to be used in manufacturing a semiconductor product prior to receiving feedback regarding the manufacturing, the system comprising:

a semiconductor fabrication tool configured to execute a fabrication process using the process parameter value, wherein the process is associated with a specific technology;

a database configured to store information identifying a plurality of parts and associated manufacturing information, wherein each part is associated with a technology and wherein the manufacturing information reflects feedback data obtained by manufacturing the parts; and

a plurality of software instructions including:

instructions for identifying one or more parts from the database having the same technology as the process;

instructions for retrieving at least a portion of the manufacturing information associated with the identified parts from the database;

instructions for calculating a statistical value of the retrieved information;

and

instructions for defining the process parameter value based on the statistical value.

17. The system of claim 16 further comprising:
instructions for calculating a range; and
instructions for recalculating the statistical value using only selected data related to each part identifier that is within the range.

18. The system of claim 17 wherein the statistical value is a mean and wherein the instructions for calculating the range include:
instructions for calculating a standard deviation of the selected data;
instructions for calculating an upper boundary of the range using the mean plus the standard deviation; and
instructions for calculating a lower boundary of the range using the mean minus the standard deviation.

19. The system of claim 18 further comprising instructions for multiplying the standard deviation by a predefined constant when calculating the upper and lower boundaries.

20. The system of claim 16 further comprising instructions for applying the process parameter value to the fabrication process.